AN

EXPLANATION

Of that PART of

Dr. *Boerhaave*'s APHORISMS,

Which treats of the

PHTHISIS PULMONALIS,

OR THE

CONSUMPTION;

Deſcribing the RISE, PROGRESS and METHOD of CURE, peculiar to that Diſorder.

By CHRISTOPHER PACKE, M. B.

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LONDON:

Printed by M. COOPER, for the AUTHOR. 1754.

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TO THE
READER.

THE following pages were originally designed as a ſpecimen of an intended ſupplement, to the *Engliſh* tranſlation, of the two firſt volumes of *Van Swieten*'s commentary, on *Boerhaave*'s Aphoriſms concerning the knowledge and cure of Diſtempers; and the author had never heard of the publication of a third Volume of that excellent work till he had agreed with the printer, for the publiſhing this little commentary. The ſize of his intended performance therefore is now diminiſhed by one half, as there remains at preſent only a fourth part of the aphoriſms unexplaned.

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To the READER.

As an entire explanation of *Boerhaave*'s Aphoriſms, cannot but be very neceſſary to beginners in the Science of Medicine, it is hoped, that this intended performance will be well accepted, till its deficiencies are ſupplied by ſome more able hand.

The propoſals deſcribing the conditions on which the intended ſupplement will be publiſhed, are to be ſeen at the end of this Commentary.

AN EXPLANATION OF Dr. BOERHAAVE's Aphoriſms.

Phthiſis.

SECT. MCXCVI.

IF the lungs ſhould be ſo eroded by any ulcer, that a conſumption of the whole habit ſhould be occaſioned, the patient is ſaid to be afflicted with the Phthiſis Pulmonalis, *or a Conſumption as the Engliſh popularly call it.*

Before this diſorder is more particularly conſidered, it will be by no means improper to excite in the readers mind, a general idea of its phænomena, their cauſes and effects.

The diſtemper ariſes from an exulceration of the ſubſtance of the lungs, affecting the veins, arteries and bronchial veſſels. The pus abſorbed from this ulcer into the blood, diſſolves its whole maſs by degrees into a putreſcent liquamen, imparting at the ſame time an alcaleſcent acrimony to the fluids: On this ſingle circumſtance ſimply conſidered, de-

pends almoſt the whole aſſemblage of ſymptoms apparent in the diſeaſe. The blood through the abſorption of purulent matter, labours under a beginning and increaſing cachochymy; its balſamic quality decreaſes, then diſappears; and as the diſtemper increaſes in violence, the fluids are ſo far from being nutrititious, that they become towards the end acrid and eroding; abrading every day more and more the ſolid parts of the body; whence the waſting and conſumption. The blood being firſt ſpoiled by the ulcer, continually ſupplies it with freſh pus; and this increaſe of pus, promotes the farther contamination of the fluids with an amazing ſwiftneſs, in ſo much that the diſeaſe is ſometimes finiſhed by the death of the patient in ſo ſhort a time, that it loſes almoſt the denomination of a chronic diſorder.

A young lady of about ſixteen, died in leſs than a fortnight after the firſt ſpitting of purulent matter, notwithſtanding great care taken on the firſt appearance of the cough, with regard to her regimen in diet, her medicines, a perpetual bliſter to divert the matter from the lungs, riding on horſeback and in a coach, and the conſtant uſe of aſſes milk.

The lungs are full of cells and their ſubſtance is very ſoft; ſo that the matter is liable to lodge in them with great obſtinacy, and a ſuppuration once begun, is eaſily communicated to their whole ſubſtance, through the ſoftneſs of its contexture. The number of cells for the reception and confinement of the matter, is probably the reaſon why conſumptive patients are often rendered miſerable, by a conſtant tickling ineffectual cough, through the great difficulty of expectoration, and the endeavour of nature to diſlodge the offending matter. There is alſo another calamity, which greatly contributes to render this evil ſo difficult of cure and quick in its progreſs, which is, that the lungs are furniſhed with a greater number of abſorbent veſſels, than

any

any other of the viſcera, if you except the ſmall guts with the bibulous orifices of their lacteal veins. The quantity of the abſorbed matter and the progreſs of the bloods infection, will be in a direct ratio (cæteris paribus) of theſe abſorbent veſſels: So that in a pulmonary conſumption the blood will be ſooner ſpoiled, than in a conſumption of the liver, ſpleen and other parts. The ulcers therefore of this part are leſs likely to heal, as the ſinuſes will be more numerous, from the great number of cells and ſoft contexture peculiar to the lungs; and the matter will be rendered ſooner purulent, from its great increaſe and obſtinate confinement. Alſo if ſome of the ulcers are healed, new ones are more likely to be formed. The conſtant motion of the part in reſpiration, and diſtraction of the fibres under a ſolution of continuity ſtill farther from each other, is alſo another reaſon, why theſe ulcers are ſo very difficult of conſolidation: This motion of the parts, occaſioned by the ingreſs of the air in reſpiration, is very different from that of the lungs and whole body together, in riding, ſailing or ſwinging; which is ſalutary, promotes expectoration, the tranſit of the blood and reunion of the ulcerated fibres; by this, the parts not being farther diſtracted from each other. If we obſerve a wound made in any muſcular external part of the body, we find, that by the motion of that part in particular, the aperture will become larger and the cure impoſſible, till the divided fibres are kept in contact, by reſt and a proper ſituation of the part.

SECT. MCXCVII.

THE origin of this ulcer is derived from any cauſe, which confines the blood within the lungs in ſuch a manner, as to convert it into purulent matter.

In confirmation of this (admirable and comprehenſive) definition we find, that inflammatory obſtructions of the lungs are often terminated in a conſumption; any ſchirrous tubercles may impede the paſſage of the blood, producing the ſame effect; alſo coughs (or what we commonly call colds) long continued, are often productive of this evil; as by the violent and frequent agitation of the parts in coughing, a ſolution of continuity in the fibres may be effected, and the bloods paſſage through the lungs ſo impaired, as to produce pus from its ſtagnation in them.

SECT. MCXCVIII.

THESE cauſes may be referred, firſt (A) to that particular temperament of the body, by which an hæmoptoe is firſt occaſioned, and after that, an ulcer in the eroded part. This conſiſts in the tender frame of the arterioſe veſſels, and the impetus of the blood infected with acrimony of any ſort. It is known by the appearance of the fine veſſels, and of the whole body: A long neck, plane and narrow cheſt, depreſſion of the ſcapulæ, the blood being very florid, thin, diſſolute, acrid and hot. The colour of the body being white and fine red, the ſkin tranſparent, mind chearful and the genius quick. (B) In that weakneſs of the bowels, by which the aliments too tenacious in their own nature, beget obſtructions, putrefaction and acrimony; then is produced an exulceration of the veſſels eroded by theſe evils; this is known by a ſmall febricula, dry cough, increaſing heat, redneſs of the lips, mouth and cheeks, increaſing and ariſing after

after the entrance of freſh chyle into the blood, a propenſity to ſweat on ſleeping, weakneſs and great panting on the leaſt motion. (Γ) In that age when the veſſels having arrived at their greateſt bulk, reſiſt any farther extenſion, while at the ſame time, the blood increaſes in quantity, acrimony and impetus; therefore between the ſixteenth and thirty-ſixth year. (Δ) In an hereditary diſpoſition of the conſtitution, here conſult what has been delivered at (24, 26, 29, 38, 39, 40, 41, 44, 45, 48, 60, 61, 64, 69, 72, 82, 84, 86, 100, 106.) For theſe (ſections) being compared with (1198 *α. β. γ. δ.*) explane, define and foretell the nature, cauſes and effects of a blood-ſpitting; the hæmoptoe which is the effect of this conſtitution, is accelerated by the interruption of any habitual evacuation, eſpecially of the ſanguineous kind, as the hæmorrhoids, menſtrual or lochial flux, bleeding at the noſe, habitual venæ-ſection, and theſe eſpecially in plethoric habits, or perſons deprived of a limb. 2. Any great force brought on the lungs by coughing, ſhouting, running; great efforts of the ſtrength, anger or any wound inflicted howſoever. 3. By a diet of the acrid, ſaline or aromatic kind, drink of the ſame nature and manner of life. By any diſeaſe whereby the quantity, acrimony, velocity, rarefaction and heat of the blood is increaſed; whence it ſo often happens in acute fevers, the plague, ſmall-pox and ſcurvy.

Chriſtopher Bennet in his Veſtibulum ad Theatrum Tabidorum, imparts many uſeful obſervations

ons on this diſtemper, and the method of treating patients in all ſtages of the diſorder. The reader muſt frequently exclude his theory, but may draw many uſeful concluſions, according to a juſt rationale of medicine, from the recital of matter of fact in his hiſtories of caſes: However, his theory and method of cure is frequently more juſt, than could have been expected from the times he lived in. By the title of his book, he ſeems to have deſigned a larger work on the ſame ſubject, and this treatiſe only as a preparation to his grand deſign; but be that as it will, the book here mentioned is the only one of the kind wrote by him.

It is obſerved by phyſicians both antient and modern, that a ſpitting of blood uſually foretells an exulceration of the lungs; and the conſequence is without doubt extremely natural; but yet we ſee many perſons ſubject to this diſorder, who nevertheleſs live many years free from a conſumption; and die at laſt of mere old age or ſome other diſtemper. But it concerns all who are ſubject to an hæmoptoe, to take early care in the uſe of the nonnaturals and the adminiſtration of remedies, to prevent its attack when abſent, and remove its ſymptoms when preſent.

The tender frame, &c. The phthiſis is moſt frequent in young perſons, as their veſſels are moſt lax; to theſe it more particularly happens, if at the ſame time their humours are acrid and thin. The fluids are alſo more moveable in young perſons, than in thoſe of a more advanced age. This tendency or temperament may be known by the eye and touch: the fleſh feels ſoft, and the ſkin is thin, ſo that the colour of the blood is eaſily diſcerned through it, and appears florid in the cheeks and lips, on the leaſt increaſe of the circulation.

Long neck. The preternatural length of the aſpera-arteria, renders the inſpiration and expiration more difficult, a greater force being required, to

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draw in and expel the air through this long tube. The air therefore acts with greater violence on the lungs; for as it requires this nisus to facilitate its passage, it enters the bronchial vessels with greater velocity and quantity of motion, which cannot but be of bad consequences to lungs of a tender texture. The extraordinary length of the aspera-arteria, also subjects the patient to frequent coughs from the more copious secretion and greater quantity of mucus, in a long than a short wind-pipe.

Plane and narrow chest. A straitness in the cavity of the thorax gives rise also to a consumption very frequently, and that of the worst sort; it being in this case a distemper, arising from the bad conformation of the solid parts; which admits of no cure but a palliative; it being impossible to alter the shape of bones and relieve effectually, lungs labouring under great pressure and resistance to their free motion, from the narrowness and intropressure of the sternum and dorsal vertebræ; the circulation of the fluids and ingress of the air is greatly impeded by this misfortune in the conformation.

Depression of the scapulæ. A straitness on the shoulders and depression of the scapulæ is worst of all, and a most alarming symptom in a consumptive patient, as at this place the lungs are more particularly and immediately affected.

The skin white. The fine colour of the skin, mentioned by our author as a sign of a consumptive tendency, denotes a transparency of the fluids, tenuity of the vessels and laxity of the fibres; which is accompanied by a weak constitution of the whole body in general, and of the lungs in particular. This weakness in the whole system of fibres, greatly diminishes the energy of the vascular tunics, and assimilation of the chyle consequent on their action. The acrimony therefore which the blood acquires when remaining some time in the body, is not sufficiently obtunded by the admistion of new

ſalutary chyle, properly extracted from the food, temperated and attenuated by the bland and ſaponaceous juices, ſent by nature into the alimentary canal. For though the food be ever ſo well choſen and chylification perfect, yet in the condition of the vaſcular coats here ſuppoſed, the chyle cannot be entirely mixed with the blood, thus renewing its ſalutary and benign qualities. A morbid laxity of the pulmonary fibres in particular, will certainly produce a depraved diſpoſition in the fluids, as the ſanguification is more eſpecially performed in the veſſels conſtituted of theſe fibres. The blood therefore by theſe means, may be endued with all the evils mentioned in the Aphoriſm, and become florid, thin, diſſolute, acrid and hot.

Mind chearful. It has been obſerved by moſt medical writers, that almoſt all perſons of a conſumptive habit, are bleſſed with a lively imagination and chearful temper; but whether this temperament of the body affects the mind, or the mind the temperament, ſavours too much of a metaphyſical diſquiſition to be conſidered in this place.

B In that weakneſs of the bowels. Weakneſs of the bowels renders the chylification imperfect, conſequently if the aliment is of too tenacious a texture, a depraved chyle enters the blood, crudities ariſe and obſtructions may be formed; which are more likely to fall on the lungs, as here nature endeavours greatly, to aſſimilate the chyle which abounds with tenacious crudities, and is with difficulty driven through the pulmonary veſſels; a frequent reſpiration then will be preſent, and all the train of ſymptoms liable to follow. Through this weakneſs of the abdominal viſcera or inteſtinal tube, the fæces are not driven with ſufficient force to their place of exit; acrimony is generated from their remora in the body and putreſcency conſequent on ſtagnation: this acrid putreſcent diſpoſition thus conciliated to the humours, may affect the lungs

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and erode their veſſels, producing ulcers, conſumption and death. In this ſtate of the viſcera, a ſtriſt regimen in diet ſhould be obſerved; and therefore we ſee the neceſſity, of confining young perſons to aliment of a mild nature, eaſy of digeſtion in the primæ viæ and aſſimilation in the veſſels. Hippocrates ſays that the firmneſs of texture in the aliment, ſhould be in proportion to the age, labour and exerciſe, leſt the blood ſuffers by a depraved chyle.

A ſmall Fever. If a perſon is afflicted with a ſmall fever and difficulty of breathing, particularly after meals, we may pronounce him affected with weak lungs, and that the chyle is not eaſily tranſmitted through them. This heat and quick reſpiration (cauſed by the increaſed quantity of the blood, from the addition of new chyle in proportion to the food received,) is not uſually perceived till an hour or two after the time of eating, as the chylification then proceeds ſwiftly and the blood receives its ſupply. Though in ſome who are troubled greatly with wind after eating, the diſtenſion of the ſtomach immediately occaſions a great ſenſe of fulneſs, and uneaſineſs in breathing. A perſon in this caſe appears weak and his ſkin tender and flaccid: And though he is eaſy and ſeems in health at any diſtance of time from meals, yet on the leaſt unuſual motion, his pulſe and reſpiration are greatly increaſed; he labours alſo under inexpreſſible uneaſineſs and anxiety at the heart: this ſymptom denotes that the ſolids and fluids are not in æquilibrium. The heart vibrates and palpitates, being greatly oppreſſed in tranſmitting the blood, accumulated in it, by the augmented impetus and improper exerciſe; as alſo in impelling the fluids overwhelming the lungs, through the pulmonary arteries; the air then is called in to its aſſiſtance, and a quick reſpiration or panting is remarkable. In this condition of the habit we ſee, that the blood is driven with great difficulty

difficulty through the lungs, and except timely and prudent advice be followed, and the ſymptoms happily alleviated, an obſtruction will ſoon be formed, as the blood will (in all probability) ceaſe to be entirely tranſmitted through the pulmonary veſſels.

Dry Cough. This obſtruction once formed, produces a dry cough, from the endeavours of nature to diſlodge the offending matter; the cough is at firſt dry, as a rupture of the obſtructed veſſels is not at firſt effected. By the weakneſs of the viſcera (conſidered under this head,) and the conſequent acrimony and putreſcency of the fæces, may be induced ſuch an eroſive quality on the whole maſs, as greatly to endanger the coheſion of the fibres, conſtituting the obſtructed veſſels. An hæmoptoe or ſpitting of purulent or ſanious matter, will then be preſent, according to the violence or duration of the obſtruction. If theſe ſymptoms appear, you may fear the approach of a conſumption; and if the other circumſtances are preſent with them, you may be under great apprehenſions for the welfare of your patient, the texture of the fibres and bad conformation of the ſolids, conſpiring in the ſame end with this dreadful diſorder.

Propenſity to ſweat. Profuſe ſweats breaking out in the night-time and after ſleeping, denote both a great laxity in the fibres and diſſolved craſis of the blood: the nocturnal ſweats being more profuſe, as each of theſe united circumſtances is greater.

Γ. In that age when, &c. Our author here thinks, the chief danger of a conſumption to be between the ſixteenth and thirty-ſixth year; after the fibres have arrived at their greateſt degree of extenſion. Some ceaſe to grow at ſixteen, others not till after twenty. The fibres have not acquired their full ſolidity, denſity and vigour till after the thirtieth year, which age is generally allowed to be the prime or acme of the human conſtitution; the author here delivers thirty-ſix years, as the longeſt time

time poſſible for the fibres to continue their extenſion, or rather that if a perſon lives ſix years after the full increaſe of his ſtamina free from any conſumptive taint, he may relinquiſh all apprehenſion of the diſorder.

However, a late caſe proves this as well as all other general rules, liable to particular exceptions. A woman about ſixty years of age, afflicted with a conſumption and exulceration of the lungs, applied for help; a purulent ſpitting by her own account had appeared, ſoon after ſhe perceived herſelf out of order; ſhe was now extremely weak and ſhort breathed. By the aſſiſtance of a perpetual bliſter, mild pectorals and balſamic diluents, the ſpitting grew better coloured and the cough leſs troubleſome, all the ſymptoms common to the diſeaſe were alſo much alleviated, but being unable to confine herſelf to a proper diet, and having a violent craving after every thing ſhe ſaw ſwallowed by the people about her, whether beef, ſpirituous liquors, &c. ſhe perhaps prevented a cure, or at leaſt greatly increaſed the violence of the evil by her own obſtinate folly. She continued in this way near half a year, at which time ſhe was ſtronger and better, than when ſhe firſt deſired aſſiſtance, though much worſe than when a fortnight had elapſed after the application of the bliſter; for no longer was ſhe carefull in obſerving her regimen and medicines. Her cough, ſpitting and hectic fever, were now greatly increaſed, and all the ſymptoms proceeded with great rapidity, to effect her final diſſolution in about a month. There is however this concluſion to be drawn from her caſe, that though it is poſſible for perſons advanced in age to prove conſumptive, yet, on account of the greater ſtrength and ſolidity natural to their fibres, the diſtemper neither proceeds ſo faſt, nor is ſo difficult of cure.

When the full increaſe of ſtature is obtained, the fibres have but juſt undergone their greateſt extenſion

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and remain in a relaxed and weak ſtate, till they have been ſtrengthened by proper nutriment, from aliment capable of an eaſy and perfect aſſimilation. In proceſs of time, the fibres acquire ſtrength and vigour ſufficient to digeſt a more tenacious diet and ſuſtain labour, both which might have oppreſſed the lungs, if uſed immediately after the full increaſe of ſtature. The pulmonary veſſels at that time, not being able to ſupport the impetus of the blood augmented ſuddenly or unequally. This weakneſs (if proper care be taken) is remedied by time. Perſons of a full age and robuſt habit, are not ſo ſubject to hæmoptoes, or hæmorrhages of any kind, as young people, and thoſe of a delicate ſyſtem of veſſels, which yeild more eaſily to the impetus of the fluids impinging on their ſides.

Δ. An Hereditary Diſpoſition to this paticular diſeaſe, is often a miſerable legacy from the parent to the child. The hereditary labes is communicated either in the temperament of the humors or conformation of the ſolids. Particular families are often ſeen conſumptive on this account. The bad conformation of the ſolid parts, is moſt commonly the cauſe of an hereditary conſumption; this kind is moſt difficult of even palliation, the cure being impoſſible. When it proceeds from a bad temperament of body which becomes hereditary, and entails this diſorder on poſterity, the cure is not ſo difficult, as the temperament of the humors may be greatly changed by regimen, medicines, and a prudent uſe of the nonnaturals; whereas an amendment of the deformed ſolid parts is not to be hoped for. This as well as other diſeaſes, which become ſometimes hereditary, has been known to afflict the grandſon and not the ſon. It may ſeem ſtrange that the hereditary cauſe appearing in the father ſhould lay dormant in the ſon, and yet be by him communicated to the grandſon; but however unaccountable this may be thought, it may certainly happen

happen and be rationally accounted for. Let us ſuppoſe a bad conformation of the thorax hereditary in a family, and one of this family afflicted with a phthiſis on that account; his ſon fearful of the conſequences attending ſuch an hereditary misfortune, is regular, temperate and rides conſtantly, thus hoping to eſcape the impending evil. If he ſucceeds in his purpoſe and lives till after thirty in this prudent method, his lungs will have acquired ſuch ſtrength and firmneſs, that his death may be at laſt effected by old age or ſome other diſorder. Although the ſon may have eſcaped the hereditary diſeaſe himſelf, yet the bad conformation natural to the family may be communicated to his offspring, and in the grand-ſon produce the family diſorder, by means of an intemperate life, imprudent prophylaxis or occurrences both inevitable and blameleſs.

Here conſult What has been delivered at the places cited. The diſeaſes of the ſolid ſimple fibre (24.) may produce this diſorder, from too great weakneſs affecting the lungs with difficulty of breathing, cough, and the ſubſequent ſymptoms; the fibres are liable to break from their exceſſive debility, whence the event. (26.) The acid habit (60.) alſo generates a weak fibre and may produce the conſequences related (64.) A bad nutriment may alſo cauſe this diſtemper (48.) The glutinous tendency of the humors (69.) may alſo be a cauſe of obſtructions in the lungs and a ſubſequent Phthiſis.

All the cauſes of putreſcency may occaſion a conſumption, from the alcaline tendency (76.) whence eroſion of the lungs (86.) from the acrimony of the humors.

The increaſed motion of the blood may produce a conſumption, whether the fibre be too rigid or too lax; if too lax, the veſſels in the lungs may be ruptured and extravaſation with exulceration enſue: This may be the caſe in conſumptions ariſing from crying,

crying, ſinging, ſhouting, &c. If the fibres are too rigid, an increaſe in the moment of the blood may bring on a pleuriſy, peripneumony, inflammations of the mediaſtinum, diaphragm, &c. Whence ſuppuration of the lungs and incurable phthiſis. Other inflammations occaſioned by the too great moment of the blood, accompanied with rigidity of the fibre, and producing great ſuppurations, may cauſe this evil from reſorption of purulent matter into the maſs of blood.

The diſeaſes of a Plethora (106.) may alſo be the origin of this malady, as they will produce obſtructions with their conſequences.

1. A retention of any uſual excretion, eſpecially of the ſanguineous kind, and in plethoric habits, will produce many of the conſequences already deſcribed. An interruption of the menſtrual flux in women, and of the hæmorrhoids in men, increaſes the quantity and moment of the blood; whence extravaſation and ſuppuration may afflict the lungs. Perſons after the loſs of a limb are very apt to become plethoric; for as there is in this caſe leſs demand for nutriment, and that often without any diminution in the appetite, a diſeaſe from fulneſs may be the conſequence; this is moſt likely to happen to ſoldiers and ſailors, who often loſe their limbs by accidents, being themſelves in perfect health, ſo that their appetites and juices are quite natural. The diſorder from retention of the neceſſary evacuations, are moſt likely to produce hæmoptoes or rupture of the veſſels in the ſpring ſeaſon; for at this time, the veſſels are naturally diſtended by the influence of the ſeaſon of the year, any retention therefore and congeſtion of humors, happening at this juncture, will greatly augment the dilatation of the veſſels, and by that means may produce a diſruption of the fibres. To obſtructed virgins this often happens in the ſpring eſpecially, for on the retention of the menſtrual-flux, a difficulty of breathing

ing and ſpitting of blood is very common, which if not remedied in time, may become the origin of an incurable phthiſis. However an hæmoptoe of this kind is not uſually eſteemed ſo dangerous, as thoſe incident to men, to whom it may happen from many cauſes at this time. In women often is ſeen at the monthly period, a blood-ſpitting in place of the menſes.

2. Any great force brought on the lungs, may occaſion a conſumption. By the inflation of muſical wind inſtruments, ſinging and ſhouting long continued, the glottis is kept continually ſtrait, and the free paſſage of the air to and from the lungs prevented; if this is too often repeated, obſtruction and diſruption of the pulmonary veſſels may enſue. Of any exerciſe which requires a violent and frequent reſpiration, this diſorder may be the conſequence. If a weak youth plays or runs immoderately, the moment of the blood in the lungs will be too much increaſed and an hæmoptoe occaſioned. Exceſſive feaſting is dangerous for the ſame reaſon, as the lungs are greatly employed in aſſimilating the chyle. The pulmonary canals are in the laſt inſtance oppreſſed with new chyle, and if weak, may undergo a diſunion of their fibres and extravaſation of the fluids.

3. By a diet of the acrid, ſaline and aromatic kind. All gluttons expoſe themſelves to great danger of a conſumption, as they not only devour a great quantity of food, but alſo delight in ſavoury ſauces, or an acrid quality of their ingeſta; ſome alſo at meals, ſwallow a glaſs of wine between every mouthful, which with the fleſh-meat we Engliſh uſually feed upon, conſpires greatly in producing all theſe evils already ſo often deſcribed, the lungs not being able to ſuſtain ſo great an increaſe of impetus in their fluids.

By any diſeaſe whereby, &c. All the diſtempers which from a rarefaction and encreaſed heat of the blood

blood generate acrimony in the body, produce this diſeaſe; which is one reaſon why the plague, ſmall-pox and fevers of all kinds, ſo often terminate in the phthiſis. There is alſo another circumſtance attending acute diſorders, which may produce a conſumption, (viz.) the great debility and univerſal laxity of the fibres, which theſe evils (eſpecially if tedious or violent) leave on their departure. The ſcurvy may produce a conſumption, both from the fever which it excites in many, and the acrimony of the humors with which it always is united.

SECT. MCXCIX.

HENCE (1198) it ariſes with a gentle pain, moderate heat and confined oppreſſion perceived in the thorax; the blood flows out for the moſt part florid, ſcarlet, frothy, with a noiſe of the lungs, with the fibres, membranes, arteries, veins and bronchial veſſels; with a ſoft, ſmall, fluttering pulſe; panting; a ſalt taſte having been before perceived in the mouth.

An hæmoptoe may be foretold, if the patient cannot ſleep in quiet, toſſes about in bed with inexplicable inquietude, ſtraitneſs in the cheſt and difficulty of breathing. Before the blood-ſpitting all theſe ſymptoms attend, from the too great diſtenſion of the pulmonary veſſels. A light cough firſt appears chiefly in the morning, becauſe, by the ſupine poſture and reſt of the body in the night-time, any matter offending the lungs, has had time and opportunity to accumulate itſelf. The cough is followed with a ſpitting of phlegm ſtreaked with blood at firſt, afterwards it appears frothy and of a ſcarlet, florid colour; the admiſſion of the air with the blood

and

and expectorated phlegm being the reaſon of this its colour and appearance. Blood might be ſpit out of the mouth, and proceed from the fauces, but this might be effected without a cough, and if occaſioned by the ſtraining of theſe parts in violent coughing, might then be diſtinguiſhed by a ſlight inflammation and foreneſs of the part: A quinzy may alſo produce a blood-ſpitting, and then the place of extravaſation is evident enough. Blood can never be brought up from the Lungs without a cough, and a hæmoptoe of this kind is known by the preceding dyſpnea, ſoft pulſe and particular ſcarlet colour of the extravaſated matter.

Noiſe of the lungs. A noiſe or rattling in the throat during reſpiration, is one of the latter ſigns, proceeding from a copious extravaſation of matter into the bronchial veſſels. The expectoration of fibrils and membranous fragments with the ſpittle, is alſo one of the laſt and alarming ſymptoms, as it denotes a great diſruption of fibres and deſtruction of ſubſtance.

The quantity of blood ſpit out, is greater or leſs, according to the ſize of the veſſel burſt and danger of the patient; the ruptured veſſel in ſome is ſo large, that the patient is in danger of immediate ſuffocation by the quantity of extravaſated liquor.

All obſtructions of the lungs, are attended with a ſoft, ſmall pulſe, for when the reſpiration is impaired, the impetus is diminiſhed of the blood too long detained in the lungs. The pulſe is alſo quick, from the impeded paſſage thro' the lungs and frequent contraction of the heart conſequent on any conſiderable obſtruction; a quick reſpiration or panting is called in now by nature, to facilitate the blood's paſſage thro' the pulmonary veſſels; and as no great quantity, can paſs into the aorta at a ſingle contraction of the heart, the pulſe continues ſoft, frequent, and ſmall. A ſalt taſte in the mouth, is occaſioned by the acrimony abounding in the fluids.

SECT. MCC.

THE cure is effected (1), by a copious venæ-ſection every third day to the fourth time, (or repeated) till the inflammatory cruſt entirely diſappears. 2. By refrigerating, incraſſating, ſtiptic and demulcent medicines, uſed a long time and united with mild balſamics. 3. By the ſix nonnaturals ſo conducted, as to be moſt oppoſite to the cauſes mentioned (1198); and chiefly by continually perſevering in the mildeſt diet and manner of life, to which purpoſe a milk-diet is the beſt adapted. 4. By correcting the ſpecific nature of the cauſe or particular diſorder.

Stiptic remedies are improper; the impetus and quantity of the blood is firſt to be diminiſhed, in proportion to the ſize of the veſſel burſt, and force of the circulation; by this, the moment of the blood is moderated, and the quantity of liquor extravaſated into the lungs, proportionally diminiſhed. It is of little ſignification to bleed in ſmall quantity; let the orifice be large and fifteen or twenty ounces loſt. This method muſt be underſtood to reſpect the beginning of the diſorder, or firſt appearance of the hæmoptoe, when the patient is full of fleſh and fluids; for when the ulcer is form'd and pus generated, all venæ-ſection is exceeding prejudicial, except in particular circumſtances, hereafter to be treated of. The blood-ſpitting will in great probability be happily removed, if ſkillful and timely advice be followed. It is of little moment to direct which vein ſhou'd be opened in particular, for revulſion is here impoſſible as the blood of the whole body paſſes thro' the lungs; the diminution of the quantity oppreſſing

preſſing the veſſels is the efficacious circumſtance. Ligatures applied to the arm and thighs, compreſs the veins (which in general are more ſuperficial than the arteries) and retard the blood returning to the heart: The oppreſſion therefore on the heart and lungs will be leſs, as the quantity of fluids ſo detain'd in the limbs is greater. But, as this compreſſion long continu'd on one particular limb, might bring on a mortification from the impeded circulation thro' it, ſo, on the firſt appearance of ſtagnation and great uneaſineſs in the part bound, let another limb be tied in the ſame manner, and the former loos'd. In all hæmorrhages from the burſting of one large artery or many ſmall ones, ligatures ſhou'd be always ready.

3. By refrigerating, incraſſating, &c. The medicines ſhou'd be of a cooling nature, and ſuch as conſpire to aſſuage the increaſed moment of the fluids; for in general, wherever an hæmorrhage appears, is preſent alſo too great an impetus in the circulation. Farinaceous emulſions and mild decoctions, are medicines well adapted to anſwer this third intention. Incraſſants are particularly uſeful, in hæmoptoes proceeding from a thin, eroſive quality in the blood; the broken craſis of which may be thus mended, and the hæmorrhage ſtopt. Mild gelatinous ſubſtances, as harts-horn or calves-foot gelly are remedies of this claſs; the arabic emulſion is alſo an excellent demulcent and incraſſant. By theſe means a mild lentor is conciliated to the blood, which in general is to be attempted, as the greateſt part of (if not all) hæmoptoics, are afflicted with a thin broken craſis of the fluids. Stiptics are violent medicines, which ought not to be adminiſter'd, the mild gellies being in this caſe, the moſt ſalutary aſtringents. The property of thoſe medicines ranked under the claſs of ſtiptics, is, to coagulate the humors and conſtringe the veſſels: But as ſtiptics act chiefly by conſtriction, an inflammation of the lungs

may ſucceed the ſtopping of the hæmorrhage by their uſe: Obſtruction and inflammation being moſt likely to form and ſuppuration attend, around parts previouſly wounded. Stiptic remedies therefore ſhould never be exhibited, except in caſes of great extremity, or before many repetitions of phlebotomy. A mild milk-diet muſt be ſtrictly obſerved, to prevent all tumult in the circulation.

4. By correcting the ſpecific nature of the cauſe. We are here directed, to examine carefully into the circumſtances attending the patient, before he was affected with any diſorder in the lungs; by this means will be known, whether the hæmoptoe was produced by the retention of any habitual evacuation, as of the hæmorrhoids in men, or the menſtrua in women; and the patient is to be treated accordingly. It is doubtful whether any great advantage will accrue from ſuch an enquiry; for tho' we find the hæmoptoe evidently proceed from the retention of the menſes, we cannot give an emenagogic or ſtimulating medicine, for fear of increaſing the moment of the blood and quantity of the hæmorrhage. However, this enquiry ought to be made, as it may aſſiſt us in forming a juſt prognoſis of the event; for if we ſucceed in ſtopping an hæmoptoe, ariſing from obſtruction of the menſtrua, and find afterwards the menſes appear, we may hope effectually to cure the patient.

SECT. MCCI.

WHEN once this has happen'd and is reliev'd (1200), phlebotomy is to be adminiſter'd every ſix months for ſome years, by degrees diminiſhing the quantity.

On the firſt appearance of the hæmoptoe's being ſtopped, the patient ſhou'd begin to uſe a moderate exerciſe,

exercise, to strengthen the fibres of his lungs and prevent a plethoric tendency in the habit. For this reason, the venæ-section shou'd be repeated every six months at least (tho' no signs of the hæmoptoe appear), and left off entirely, by a gradual diminution in the quantity.

SECT. MCCII.

BUT if on account of the redundancy of the evil, (1198) improper application of stiptics, or neglect of the true method of cure (1200), after the blood-spitting should arise, a difficulty of breathing, continually increasing, vague horror, heat and redness of the cheeks, dry cough, hectic fever, greater thirst, weakness and a sense of weight in the thorax, it signifies, that the wound of the hæmoptoe has changed the matter already collected about its lips, and under the crust of dried blood, into pus; that the collection has become a concealed vomica, which when it breaks becomes an open ulcer of the lungs.

The use of a stiptic remedy in this disorder, is certainly much to be condemned; but there are circumstances which require its exhibition: Let us suppose a physician called to an hæmoptoe so violent, that venæ-section, ligatures, refrigerating medicines, and every judicious application, avail nothing; what must he do? The hæmoptoe still continues, and the quantity of blood extravasated into the lungs, may soon be so great, that suffocation and immediate death may impend. The physician therefore must endeavour to procure relief, by some powerful stiptic at all events; sixty or seventy drops of the tinctura saturnina must be given in cold water. The hæmorrhage may very probably be thus stopped,

tho' the patient may in proceſs of time, proceed regularly thro' all the ſtages of a conſumption. This tincture is a fine medicine, cooling and contracting the blood; but its uſe is never to be adviſed in a hæmoptoe, except in ſome ſuch deſperate caſe, as is here ſuppoſed. If you can avert the immediate acute danger, by no other means than that of the diſorders paſſing into a chronic evil, you are to bring on the lingering illneſs, and prolong life as much as is in your power. For however dreadful the proſpect may be, there is ſtill a poſſibility of the patient's recovery. In ſuch a caſe therefore and no other, are aſtringents to be uſed, and not even then, 'till all other approved remedies have been tried in vain.

The balſamic electuary of the pharmacopæia pauperum of the college at Edinburgh, is excellent in any extravaſation or ulceration of the lungs, being a mild detergent and balſamic. Perſons of this conſtitution are apt to ſpit blood, on ſpeaking loud and violent exerciſe, eſpecially in a cold air; for in this caſe the perſpiration is diminiſhed at the ſame time in which the motion of the blood is increaſed, which cannot but be very pernicious. When an hæmoptoe is preſent, the patient ſhou'd be kept very quiet, in a chamber warmed by a moderate fire, that the perſpiration and equable motion may be properly preſerved; every thing increaſing the impetus of the fluids, is pernicious. The moſt light and inſipid aliment muſt be obſerved, eaſy of admiſtion with the blood and without ſtimulus; freſh milk or that made ſower by art, is a very proper aliment, as it is without ſtimulus, and has been previouſly concocted, in the veſſels of the animal from which it is taken. If a more ſolid aliment is receiv'd, the lungs are oppreſſed with difficulty in breathing, to the continuance of the diſorder if preſent, and renewal of the hæmoptoe if abſent. The food ſhould be given in a ſmall quantity, and often repeated. The firſt hæmoptoe may be in all probability relieved, without

without any bad conſequence by an early adminiſtration of the means related; and the phyſician has nothing to fear, if his patient after the diſappearing of the hæmoptoe, is free from fever, oppreſſion of the breath or cough. But if the patient ſhould become plethoric, by not obſerving a proper diet, or if imprudent advice has been followed, there is great reaſon to fear the diſruption of a larger veſſel, and ſtagnation of the extravaſated liquor, in the cellular ſubſtance of the lungs. He then complains of a difficulty in breathing, pants, ſhivers, with a dry cough perpetually irritating. Theſe ſymptoms denote, a collection of the extravaſated liquors in the lungs, and beginning ſuppuration. The dyſpnæa ariſes from a compreſſion of the bronchial veſſels by the ſtagnating matter, which is at laſt converted into a putrid liquamen: Then ariſes the hectic fever, the paroxyſms of which appear in the evening. Great fluſhings in the face, and redneſs of the lips and cheeks, appear in the afternoon, as the patient will generally dine with the family. If a conſumptive perſon eats a plentiful meal, his ſtomach will be greatly diſtended, thro' the eruption of the air contained in the food, and exceſſive laxity of his fibres; the blood-veſſels therefore, which convey the blood to the inferior parts of the body, will be morbidly compreſſed by this preternatural ſize of the ſtomach; conſequently the blood will be detained too long in the ſuperior parts, and produce pain in the head, tumid appearance in the face, with redneſs of the lips and cheeks. This inconvenience might be prevented, by exhibiting the food in ſmall quantities often repeated. The evening exacerbations cannot be prevented entirely, as they are owing to the courſe of nature, and abſence of the day; however they may be moderated, by uſing the fluids preſcribed, particularly at that time.

SECT. MCCIII.

2° THIS collection of matter, may ariſe from a peripneumony terminated in an apoſtem, (832. to 843. 867) beſides the cauſes mentioned (1198); it is known by the ſame ſigns (832. 843. 867.)

SECT. MCCIV.

AN empyema alſo (1185.) may corrode, diſſolve and conſume the lungs, ſo that the ſame diſtemper may ariſe, as if they had been conſumed by their proper ulcer. (1188. No. 4.) It is known by the ſymptoms there delivered.

Where it is taken notice of in its proper place.

SECT. MCCV.

FROM whence it is evident, what are the diagnoſtic ſigns of an ulcer of the lungs, though concealed. How different its cauſes, kinds, and how various the phthiſis.

Wandering horrors, difficulty in breathing, tickling and dry cough, are ſigns of a beginning conſumption. The ulcer is known to be confirmed, and the pus to have acquired a degree of acrimony, beyond that of laudable pus, by the thirſt, hectic fever and increaſed malignity of all the other ſymptoms. Its difference and cauſes will be evident to all, who underſtand and recollect the preceding doctrines.

SECT.

SECT. MCCVI.

THESE effects of an ulcer already formed in the lungs but concealed, called a vomica, are commonly to be obſerved; the acrimony, quantity and putreſcency of the pus increaſing every day, the dilatation of the membrane containing it, its corroſion, maceration, the converſion of the blood and bronchial veſſels into pus; the purulent conſumption of the whole lungs, or one of its lobes; a cough without intermiſſion, either dry, or producing by expectoration, nothing but parts abraded by the agitation of the cough; the converſion of the blood flowing to the ulcer, into pus, propagation of the vomica, and its rupture into the tubes of the larynx; a ſuffocating ſecretion of pus for ſome time, or elſe continually forced up with coughing, in great quantity, ſinking in water, ſweet, fat, fetid, white, red, yellow, livid, cineritious, ſtrigmentous, placed on burning coals emitting the ſtinking ſmell of burnt fleſh; rupture of the vomica into the cavity of the thorax, whence the moſt difficult reſpiration, and appearances of an empyema (1188 N° 4). Then the worſt reſpiration, conſumption of all the blood and chyle into pus, loſt preparation of nutritious juice, an entire waſting of all the ſolids, hectic fever, with a ſmall and languid pulſe, violent heat of the ſuperiour parts fluſhing in the cheeks and hippocratic face, inexpreſſible anxiety eſpecially in the evening, great thirſt, profuſe ſweats in the night, red puſtules, inflation of the hands and feet from the part affected, great weak-

weakneſs, hoarſe voice, falling of the hair, itching over the whole body, with watry puſtules; yellow, ſtinking, purulent, cadaverous, frequent, weakening diarrhea with a teneſmus; ſuppreſſion of the ſpitting, death. Whence theſe rules may be deduced.

Pus generates pus, macerates, erodes and converts all the contiguous veſſels into its own nature, whence the continual propagation of the evil. It ſeldom happens that both the lobes of the lungs are at the ſame time afflicted with a vomica. The cough now produces nothing. The lungs are irritated to frequent and ineffectual contractions without any expectoration of the offending matter, which is contained in a cyſt not yet ſuppoſed to be broken. The pus contained in the vomica macerates and erodes the fibres of the lungs, effecting a diſruption of the veſſels; it then becomes an open abſceſs, the pus is propelled thro the aſpera arteria, and a ruptur'd vomica is known to be preſent by the conſpiring ſymptoms. There have been inſtances of perſons ſuffocated by the rupture of a vomica, tho' this is a rare caſe, proceeding from the great quantity and impacted conſiſtence of the pus. If you throw ſome of this purulent ſpitting into a veſſel of water, it ſinks to the bottom, and is thus diſtinguiſhed from common phlegm or mucus, which is ſpecifically lighter than water. There is now to be perceived a ſtinking breath, the ſpitting thrown on live coals, ſtinks like roaſting fleſh burnt at the fire, from the fetid oil common to both expelled by the fire. The pus is ejected by the mouth from the cavity of the thorax, a terrible putrefaction ſpreads itſelf in the lungs, and thus is deſtroyed a viſcus, the aſſiſtance of which is particularly required in ſanguification; on this account the nutrition of the body begins to languiſh on the firſt confirmation of the diſorder. The aſſi-

milation

milation of the aliment into good juices decreaſes as the evil ſpreads; till at laſt it is next to nothing: before the nutrition is entirely deſtroyed the patient dies by the ceſſation of reſpiration through loſs of ſubſtance in the fibres of the lungs. The purulent ſpitting ſeldom or never cures the patient by evacuating the pus; as expectoration is a moſt precarious evacuation, and the leaſt ſuppreſſion of it renders the matter ſanious, and increaſes the evil by the eroſion of new fibres. The ſweats proceed from the diſſolved craſis of the blood and laxity of the cutaneous fibres; the puſtules are produced by the acrimony and extravaſation of the fluids; and the hairs fall off, from the deficient nutrition of the body; through this impaired nutrition, the patient becomes lean, exhibiting the bones almoſt naked. A colliquative diarrhea occaſioned by the acrimony of the putreſcent humors, now comes on, ſo that at this time, the ſhadow of human nature remains only. This flux of the belly, is an effort of nature, to diſcharge the acrid matter redundant in the body; it may be conſidered therefore, both as ſalutary and pernicious; it is ſalutary, as it expells a great quantity of acrid matter thro' the anus, and is eſteemed pernicious, as it greatly debilitates, and ſtops expectoration; ſo that the patient is in danger of being ſuffocated, by the quantity of purulent and ſanious matter oppreſſing the lungs. The colliquative diarrhea with a ſuppreſſion of the ſpitting, uſually cloſes the dreadful ſcene. The rules to be deduced from theſe doctrines, are recounted in the ſucceeding ſections.

SECT. MCCVII.

1° AN hereditary phthiſis is the worſt of all, and not to be cured, except by preventing the hæmoptoe.

2. A ph-

2. A phthiſis from an hæmoptoe brought on by external violence, without any internal pre-exiſting fault, is (other circumſtances ſuppoſed equal) the mildeſt.

3. The phthiſis, in which the vomica ſuddenly burſts, white, equal, concocted pus is eaſily ejected, anſwering to the ſize of the ulcer, without thirſt, with digeſtion, ſecretion and good excretion, may be healed though with difficulty.

4. A phthiſis from an empyema, is incurable.

5. Heavy, ſolid, ſtinking, ſweet ſpitting with the laſt ſigns, (1206) are without hopes.

1. An hereditary conſumption cannot be cured, on account of the bad conformation its moſt frequent cauſe; or the fixed temperament of a fatal tendency; but it may be prevented, by the proper adminiſtration of the ſix non-naturals. This has been ſufficiently conſidered in the comment on the (1198) ſection.

2. A phthiſis, from an hæmoptoe produced by external violence, is certainly the leaſt dangerous, as there is no hereditary labes, bad conformation, or procatarctic cauſe previouſly exiſting in the blood. But this muſt be underſtood to reſpect a phthiſis, in which the proper means have not been made uſe of, to cure the firſt extravaſation, for if the hæmorrhage or hæmoptoe which muſt firſt be preſent, ariſing from the immoderate exerciſe, fall or any other external violence, cannot be entirely relieved, by the uſe of proper remedies, there is ſtill leſs hopes of curing the evil farther advanced, and now become a phthiſis.

3. The phthiſis in which is ſuddenly broken, &c. If an abſceſs of the lungs, proceeding from the cauſes mentioned, (1198) ſhould ſuppurate and diſcharge

diſcharge by expectoration, a good laudable pus, within one or two days after the ſigns of ſuppuration, the patient may recover, if proper care be taken. Abſence of thirſt after the evacuation, ſignifies, that the patient is free from a putrid fever, conſequently that the vomica is thoroughly cleanſed. If the matter ejected is in proportion to the ſize of the abſceſs, there will be leſs fear of new eroſions, from the acrimony of ſtagnating pus remaining in the lungs; but we cannot judge with any great exactneſs, of the ſize of the abſceſs formed, and the quantity contained in it, which ought to be expelled; the only probable method of eſtimating this quantity, is, to compare the violence of the preceding ſymptoms, ſhortneſs of breath, degree of fever, or oppreſſion on the breaſt. There is good reaſon to hope for the patient's recovery, if all the ſymptoms are remarkably relieved, and continue to diminiſh, after the diſcharge of matter. A free reſpiration is a moſt promiſing ſign.

4. A conſumption from an empyema is eſteemed fatal, from the quantity of pus, and great improbability of its being ſufficiently evacuated.

5. Heavy, ſolid ſpitting with a diarrhæa, is a moſt fatal ſymptom; the diſorder is at this time near its final period.

SECT. MCCVIII.

AFTER the vomica is formed in the lungs, the medical indication directs, to bring it to maturation and diſruption; which is effected by a milk diet, the motion of riding, warm vapors and expectorating medicines, when it is burſt,

1. To fortify the blood againſt the purulent infection.

2. To evacuate the ulcer of all its pus, as ſoon as poſſible, cleanſe the lips, aud unite the fibres.

3. To adminiſter that kind of aliment, which requires the leaſt force to impell it thro', and aſſimilate it in the lungs, but yet, ſuch as is moſt apt to nouriſh, and leaſt conducive to the formation of pus.

An inflammation of the lungs, if not ſeaſonably diſcuſſed, naturally produces a vomica, and on the rupture of the membranes encloſing this vomica, a phthiſis pulmonalis is confirmed. A milk-diet therefore muſt be uſed, when we perceive a vomica formed; milk promotes the maturation and rupture of the abſceſs, as it is of an emollient or relaxing nature: It is the moſt likely of any food in this caſe, to produce a laudable ſuppuration, and prevent the matter from becoming ſanious or ichoroſe; for it ſupplies the blood, with parts of a mild and aceſcent diſpoſition. The ſooner the membranes encloſing the vomica break, and the abſceſs becomes an open ulcer, the better is it for the patient, for the longer the contents of the vomica remain encloſed within their cyſt, the greater will be the quantity and acrimony of the pus formed; whereas, if a diſruption and evacuation of the membranes, is effected ſoon after the pus is generated, the leſs acrid and copious will be the matter of the vomica, and a ſufficient evacuation, with a perfect conſolidation of the ulcer, will more probably enſue.

By the concuſſion of the lungs in riding, a diſruption of the containing membranes may be obtained. Theſe intentions are alſo aſſiſted by an inſpiration of the warm vapour ariſing from emollient decoctions, which relaxes the fibres, lubricates the lungs and aſpera-arteria; they may be kept continually ſteaming in veſſels placed near the patient, or taken in at the mouth by means of a funnel.

This

This warm vapor may be eſteemed one of the moſt effectual remedies uſed in a phthiſis, as it acts immediately on the parts affected. As ſoon as the vomica is burſt, we muſt endeavour,

1. To fortify the blood againſt the purulent infection, from the abſorption of the virulent matter, which may remain in the vomica; antiſeptics are now to be adminiſtered.

2. To evacuate the ulcer. The lungs are of a very fungous nature and full of cells, wherefore ſinuſes are liable to form, and the matter ſtagnating in theſe cavities, is very obnoxious to reſorption. We are to endeavour at the entire evacuation of the pus, and prevent as much as poſſible the generation of new. The emollient vapour is alſo very ſerviceable in this intention, promoting greatly the free expectoration of the pus; a mild acid ſhould now be added to the decoction made uſe of, which will moderate the putreſcent quality of the pus formed, and reſtrain in ſome meaſure its tendency to increaſe; the ulcer may be greatly cleanſed, and its conſolidation promoted by the uſe of this excellent remedy.

3. To adminiſter that kind of aliment, &c. The diet now uſed ſhould be gratefully acid, eaſy of digeſtion in the primæ viæ, and that which requires the leaſt force of concoction, for its aſſimilation into blood when received into the circulation. The medicines proper at this time, are compounded by a judicious union of antiſeptics, expectorators and mild balſamics. The patient is alſo to be purged with caution, after the firſt rupture of the vomica, to determine part of the abſorbed matter to the anus. Glauber's with Polychreſt ſalt, decoction of tamarinds with ſenna, and Sydenham's purging draught, are here excellent in their kind. Except the moſt accurate regimen of diet be inſtituted and obſerved, medicines will be preſcribed to very little purpoſe. The food ſhould have been previouſly concocted

when

when taken by a phthiſical perſon, otherwiſe his weak veſſels will be unable to convert it into good chyle. The ſame food which in an healthy perſon produces good chyle, is perfectly concocted in the veſſels, and ſupplies the blood with an addition of its own healthy nature, becomes pernicious to a conſumptive perſon, by the admiſtion of the morbid fluids already in the body; care therefore ſhould be taken, to render the food of ſuch a nature, as to correct (as much as is poſſible) the unhappy tendency of the diſeaſed humors. Milk and broths are proper in this caſe, as they have been both already concocted; the one in the veſſels of an animal naturally, and the other by an artificial extraction and preparation of the nutrititious parts. To broth ſhould be added a ſmall quantity of ſome mild and grateful acid to correct the alcaleſcent tendency of this animal diet.

SECT. MCCIX.

THE firſt indication is ſufficiently anſwered, by the help of medicines gratefully acid and ſaline, the vulnerary herbs and mild balſamics, uſed long, in great quantities and in many forms.

The acid and ſaline medicines are antiſeptic, aſſuaging the putreſcent infection of the blood. The vulnerary herbs in decoctions, and mild balſamics in any convenient form, are proper. The herbs and balſamics here uſed, muſt be thoſe which are without ſtimulus, and excite no heat or tumult in the body, for ſuch a quality in them, would deſtroy their otherwiſe ſalutary effects; the heat of the body being already too great, according to the degree of putrid fever preſent. The Arabic emulſion is a fine balſamic of this claſs. The common eſculent herbs as lettuce,

lettuce, ſpinach, &c. ſhould be conſtantly and prudently mixt with the diet.

The balſamic medicines are here directed to be uſed in many forms, as one may be better adapted to the particular conſtitution of the patient than another, and that the moſt uſeful may be found. But if the form at firſt preſcribed agrees well, and contains a medicine effectually anſwering the indication preſent, its alteration is not to be adviſed. A proper decoction, the arabic emulſion and balſam of Locatelli, may be uſed ſeparately or together, for a conſiderable time, and a change of them is entirely needleſs; it being a practice very diſagreeable to phyſician, patient and apothecary, to make frequent alterations in the medicines ordered. It may here be remarked, that nothing more effectually diſcovers the ignorance of the preſcriber, than ſuch an unſettled method of proceeding: Indeed if new and contrary indications frequently ariſe, ſuch a proceeding is unavoidable, but in a chronic diſorder, this is ſeldom or never ſeen.

SECT. MCCX.

THE other (indication) is anſwered, by liquid, diuretic medicines, exciting the cough, external and internal; by conſtant motion, riding and ſending the patient into the country; alſo by the help of balſamic abſtergents, internal and external, and by conſolidating with healing paregorics.

This indication requires the evacuation of the pus and conſolidation of the ulcer; the pus is evacuated by coughing; this is promoted by the lac ammoniacum, acetum ſcilliticum, decoction of marrubium album, tuſſilago and other medicines which enter the ſmalleſt veſſels. The lac ammoniacum is a warm

medicine and excites the cough; therefore at the time that this is uſed, the patient ſhould drink plentifully of ſome balſamic and mild decoction, which renders the matter fluxile, and enters the ſmalleſt veſſels; otherwiſe, when the cough is excited, nothing will be brought up, conſequently, much trouble is brought on the patient to little purpoſe, the lungs are ſtill farther abraded and the ulcer increaſed, by the unneceſſary and ineffectual diſtraction of the fibres. By the prudent uſe of theſe medicines, thus conſpiring in the chief intention, the cough, which is the effort of nature to relieve the lungs, will be promoted, and rendered effectual in diſcharging the offending matter; the great advantage of this end if happily accompliſhed need not be farther inſiſted on.

By conſtant motion, &c. The beſt internal medicaments may be of no uſe, except a conſtant, regular and well-choſen gymnaſtic phyſic is obſerved. Few phthiſical perſons recover that live in cities, the ſulphureous ſteams from the ſmoak of coal-fires conſtringe the lungs and prohibit expectoration. Let the afflicted perſon ſeek the country and ride on horſeback; this is the moſt effectual of all remedies in cleanſing the lungs. While the patient is carried on horſe-back the matter is moved in the lungs by the gentle agitation, an eaſy cough is excited attended with a free expectoration; the ſhortneſs of breath is never ſo troubleſome at this time. The gentle motion of vection aſſiſted by the uſe of diluent, balſamic expectorants, cannot but be of great ſervice; and though the phyſician adviſing this prudent method, may not ſucceed in his moſt ſanguine wiſhes, of reſtoring health and new vigour to his patient; yet he cannot fail of receiving the ſatisfaction, which a palliation of the ſymptoms, prolongation of life, and rendering the diſeaſe leſs terrible and painful, muſt neceſſarily produce. After exerciſe let the patient ſleep if inclined to it. It muſt alſo be conſidered

that though the cough is in itſelf ſalutary, and the only means whereby the lungs can throw off the oppreſſing matter, yet, if it is conſtant and violent, the fibres are ſtill more broken, and the ſtrength of the patient greatly exhauſted by it. The ſyrup of poppies is in this caſe very proper, to procure ſleep and quiet the cough. This ſyrup rather promotes expectoration than prevents it, and is therefore preferable in this caſe to the tinctura thebaica, which with the other anodynes in general, are thought to ſuppreſs expectoration. This mild and anodyne ſyrup, excites neither fever nor thirſt, and may be taken every night on going to bed, as ſleep is very neceſſary to perſons in this diſorder.

SECT. MCCXI.

THE third indication is provided for by the uſe of ptiſans, broth and milk.

This ſection needs no explanation; for as we have already conſidered the medicines proper for the patient, the regimen muſt have been conſidered alſo; for the regimen and medicines are ſo cloſely united in this diſorder, that when the one is perfectly deſcribed the other cannot be omitted.

SECT. MCCXII.

THE palliative cure of this diſeaſe, reſpects chiefly the cough, anxieties and diarrhæa.

The cough is very painfull to the ſick; but as this is a motion excited by nature to very ſalutary purpoſes, how can we attempt to ſtop it, and liſten to the earneſt intreaties of the patient; the noxious cauſe of the diſorder cannot be expelled without it. It may be moderated by mild paregorics, which is

neceſſary when the cough is violent and dry. The remedies ſo frequently ſeen on apothecaries files, intended for the relief of perſons in this diſorder, marked Linctus for the cough, oily mixture for the cough, are preſcribed in vain, as the lungs are themſelves unſound. Theſe medicines may be of ſome ſervice, to a cough proceeding from a common defluxion of the mucaginous glands, but in this caſe, they are ſo far from relieving the patient, or palliating the ſymptoms, that they increaſe the fomes of the diſorder. For all oils or fatty ſubſtances, (viz.) ol. amyg. dulc. ſperma ceti, &c. which are generally the baſis of thoſe medicines, turn rancid in the primæ viæ, and if carried into the lacteals, co-opperate with the purulent, alcaleſcent diſpoſition of the humors. Antiſeptics are therefore adviſed to very little purpoſe, if the patient is continually licking in rancidity and putrefaction, though it be off a baculum liquoritiæ. If a linctus muſt be preſcribed, let it be the following or of the like nature.

℞ Syrup. Balſamic. ℥ ſs
——— ex Althæ.
——— e ſucco limonum aā ℥ iſs

Theſe ingredients, on the natural diſſolution of the conſtituent parts and ſeparation of the principles from each other, conſequent on the action of the ſtomach and inteſtines, do not tend to putrefaction, but conſpire in the principal intentions here delivered. The ſugar and vegetable parts tend to fermentation, and are therefore acid and antiſeptic; the ſyrups of althæa and tolu compoſe a mild balſamic; the ſyrup of lemons is antiſeptic, and corrects the cloying quality of the ſugar in the ſyrups.

The violence and frequency of the cough, is in proportion to the quantity and confinement of the matter oppreſſing the lungs. The only effectual method of moderating or ſtopping the cough, is to

palliate

palliate or cure the diſeaſe. By a convulſive motion of the abdominal muſcles, the cough is excited, and the matter offending the lungs expelled; we know that opium is very effectual in aſſuaging convulſions, but as the unhappy cauſe remains in the pulmonary veſſels, the abdominal muſcles will notwithſtanding its uſe, be ſtimulated to new contractions, which compreſs the lungs and excite the cough. Great anxieties alſo afflict the patient, towards the end of the diſeaſe, from the humors accumulated in, and difficult circulation through the lungs. Then often follows a ſuppreſſion of expectoration, and altho' the veſſels are ſo deſtitute of their due proportion of blood, it is now neceſſary to diminiſh the preſent afflux of humors to the pulmonary veſſels, which would be immediate death; to this end venæ-ſection muſt be adminiſtered, though it debilitates, and attenuates ſtill farther the diſſolved craſis of the blood. If expectorators could be depended on alone in imminent danger, their uſe alone would be more adviſeable in this caſe. Let the patient take in a warm vapor at the mouth, which is one of the moſt effectual expectorators, being not only a palliative of the cough and preſent exigency of the ſymptoms, but contributing alſo to remove the fomes of the diſorder; it mixes with the pus in the lungs, renders it leſs acrid, fluxile and moveable by the cough, and is more efficacious than any internal medicine, as it acts immediately on the part affected.

The colliquative ſweats, which appear towards the end of the diſtemper, are attended with exceſſive weakneſs, and are generally accompanied with a diarrhea, tormina of the bowels and teneſmus; theſe ſymptoms proceed from the diſſolved craſis of the blood, and great acrimony of the humours vellicating the inteſtinal tunics and muſcles of the anus, ſo that a perpetual ſtimulus to dejection is excited. Aſtringents are improper in this caſe as they ſuppreſs expectoration, and tho' the diarrhea is very exhauſting,

ing, yet a retention of this purulent matter is ſtill more prejudicial. Opiates of the ſtronger kind are better calculated to relieve the diarrhea, and obtund the acrimony of the matter vellicating the inteſtines; but theſe alſo ſtop expectoration; in which caſe the diarrhea may again return, and prove more violent than before, as nature will then endeavour to eliminate the offending matter in greater quantity by the anus. But the milder opiates, ſuch as ſyrup of poppies, decoction of poppy-heads, &c. may ſafely be uſed as they relieve the diarrhea without ſuppreſſing the expectoration.

SECT. MCCXIII.

THESE ſymptoms are relieved by a proper diet (1211), and the cautious exhibition of opiates and warm liquids.

The decoction of poppy-heads ſeems to be the beſt opiate in this laſt intention, as it abounds with a warm diluting liquid, beſides its paregoric quality; warm diluents being great correctors of acrimony. When the diſtemper is thus far advanced, and this inveterate diarrhea preſent, a ſuppreſſion of the ſpitting will ſucceed, in ſpite of the moſt aſſiduous and prudent aſſiſtance. All remedies at this time prove ineffectual, and the patient's final diſſolution ſoon cloſes the diſmal ſcene.

PRO-

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